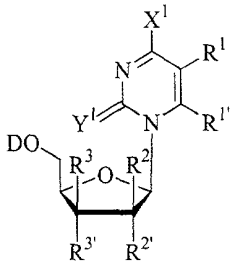
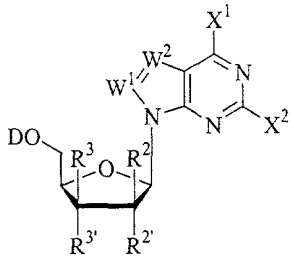
WE CLAIM:

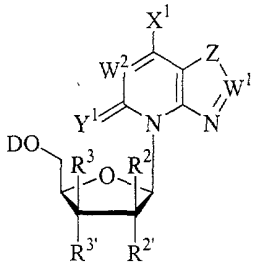
1. A method for the treatment or prophylaxis of host exhibiting a *Flaviviridae, Orthomyxoviridae* or *Paramyxoviridae* viral infection or abnormal cellular proliferation comprising administering an effective amount of a compound of the general formula (**I**) or (**II**):



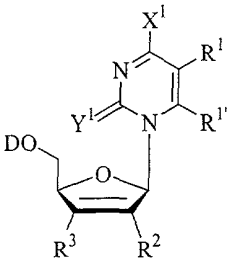
[I-a]



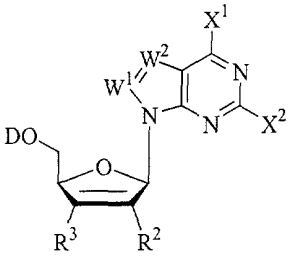
[I-b]



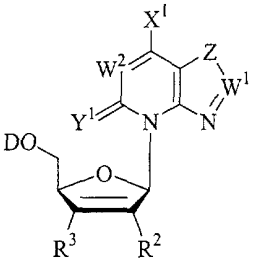
[I-c]



[II-a]



[II-b]



[II-c]

or its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:

each D is hydrogen, alkyl, acyl, monophosphate, diphosphate, triphosphate, monophosphate ester, diphosphate ester, triphosphate ester, phospholipid or amino acid;

each W^1 and W^2 is independently CH or N;

each X^1 and X^2 is independently hydrogen, halogen (F, Cl, Br or I), NH_2, NHR^4, $NR^4R^{4'}$, $NHOR^4$, $NR^4NR^{4'}R^{4''}$, OH, OR^4, SH or SR^4;

each Y^1 is O, S or Se;

each Z is CH_2 or NH;

each R^1 and $R^{1'}$ is independently hydrogen, lower alkyl, lower alkenyl, lower alkynyl, aryl, alkylaryl, halogen (F, Cl, Br or I), NH_2, NHR^5, $NR^5R^{5'}$, $NHOR^5$, $NR^5NHR^{5'}$, $NR^5NR^{5'}R^{5''}$, OH, OR^5, SH, SR^5, NO_2, NO, CH_2OH, CH_2OR^5, CO_2H, CO_2R^5, $CONH_2$, $CONHR^5$, $CONR^5R^{5'}$ or CN;

each R^2 and $R^{2'}$ independently is hydrogen or halogen (F, Cl, Br or I), OH, SH, OCH_3, SCH_3, NH_2, $NHCH_3$, $CH{=}CH_2$, CN, CH_2NH_2, CH_2OH, CO_2H.

each R^3 and $R^{3'}$ independently is hydrogen or halogen (F, Cl, Br or I), OH, SH, OCH_3, SCH_3, NH_2, $NHCH_3$, CH_3, C_2H_5, $CH{=}CH_2$, CN, CH_2NH_2, CH_2OH, CO_2H.

each R^4, $R^{4'}$, $R^{4''}$, R^5, $R^{5'}$ and $R^{5''}$ independently is hydrogen, lower alkyl, lower alkenyl, aryl, or arylalkyl such as unsubstituted or substituted phenyl or benzyl;

such that for the nucleoside of the general formula (**I**) or (**II**) at least one of R^2 and $R^{2'}$ is hydrogen and at least one of R^3 and $R^{3'}$ is hydrogen.

2. The method of claim 1, wherein the β-D nucleoside of the formula (**I-a**) is selected from one of the following:

X^1	Y^1	R^1	$R^{1'}$	R^2	$R^{2'}$	R^3	$R^{3'}$
NH_2	O	H	H	OH	H	H	OH
NH_2	O	H	H	OH	H	H	I
NH_2	O	H	H	OH	H	H	Cl
NH_2	O	H	H	OH	H	H	Br
NH_2	O	H	H	OH	H	H	S-CN
NH_2	O	H	H	OH	H	H	N_3
NH_2	O	H	H	H	Cl	H	OH
NH_2	O	H	H	H	Br	H	OH
NH_2	O	H	H	H	OH	Br	H
NH_2	O	H	H	H	OH	H	H
NH_2	O	H	H	H	OH	O-Ms	H
NH_2	O	H	H	H	OH	O-Ts	H
NH_2	O	H	H	O-Ms	H	H	OH
NH_2	O	H	H	Cl	H	H	OH
NH_2	O	D	D	OH	H	H	OH
NH_2	O	F	H	OH	H	H	OH
NH_2	O	F	H	H	OH	H	OH
NH_2	O	F	H	H	OH	H	H
NH_2	O	F	H	H	OH	Cl	H
NH_2	O	F	H	H	OH	Br	H

X^1	Y^1	R^1	$R^{1'}$	R^2	$R^{2'}$	R^3	$R^{3'}$
NH_2	O	F	H	H	Cl	H	OH
NH_2	O	F	H	H	OH	O-Ts	H
NH_2	O	F	H	H	OH	O-Ms	H
NH_2	O	Cl	H	H	OH	O-Ms	H
NH_2	O	Br	H	H	OH	O-Ms	H
NH_2	O	Br	H	H	OH	O-Ts	H
NH_2	O	Br	H	H	OH	Cl	H
NH_2	O	Br	H	H	OH	H	OH
NH_2	O	Br	H	OH	H	H	OH
NH_2	O	I	H	H	OH	O-Ms	H
NH_2	O	I	H	H	OH	Br	H
NH_2	O	I	H	H	OH	O-Ts	H
NH_2	O	I	H	H	Cl	H	OH
NH_2	O	I	H	Br	H	H	OH
NH_2	O	OH	H	OH	H	H	OH
NH_2	O	NH_2	H	H	OH	H	OH
NH_2	O	CH_3	H	H	OH	Cl	H
NH_2	NH	H	H	OH	H	H	OH
NH_2	S	H	H	H	Se-phenyl	H	H
NH-(2-Ph-Et)	O	H	H	OH	H	H	OH
$NH\text{-}COCH_3$	O	H	H	OH	H	H	OH
$NH\text{-}NH_2$	O	H	H	OH	H	H	OH
$NH\text{-}NH_2$	O	F	H	OH	H	H	OH
$NH\text{-}NH_2$	O	CH_3	H	H	OH	H	OH
NH-OH	O	H	H	H	OH	H	OH
NH-OH	O	F	H	H	OH	H	OH
NH-OH	O	Br	H	H	OH	H	OH
NH-OH	O	I	H	H	OH	H	OH
NH-OH	O	H	H	OH	H	H	OH
OH	O	OH	H	OH	H	H	OH
OH	O	NH_2	H	H	OH	H	OH

X^1	Y^1	R^1	$R^{1'}$	R^2	$R^{2'}$	R^3	$R^{3'}$
OH	O	F	H	OH	H	H	OH
OH	O	F	H	H	O-Ts	H	OH
OH	O	F	H	H	O-Ms	H	O-Ms
OH	O	F	H	H	OH	H	OH
OH	O	F	H	H	OH	H	O-Ts
OH	O	F	H	H	H	H	OH
O-Et	O	H	H	H	O-Bz	H	O-Bz
S-CH_3	O	H	H	H	F	H	OH
SH	O	H	H	H	OH	H	OH
SH	O	F	H	H	OH	H	OH
N_3	O	H	H	H	H	H	H
NH-(2-Ph-Et)	O	H	H	H	OH	H	OH
OH	O	OH	H	H	OH	H	OH
OH	O	H	H	H	OH	H	H

or its β-L-enantiomer or its pharmaceutically acceptable salt thereof.

3. The method of claim 1, wherein the β-D nucleoside of the formula (**I-b**) is selected from one of the following:

X^1	X^2	W^1	R^2	$R^{2'}$	R^3	$R^{3'}$
OH	NH_2	N	H	OH	H	OH
OH	NH_2	CH	F	H	H	OH
NH-cyclohexyl	H	CH	H	H	H	H
NH_2	H	CH	H	OH	H	F
NH_2	H	CH	H	H	H	H
NH_2	NH_2	N	H	OH	H	OH
NH_2	NH_2	CH	H	OH	H	OH
Cl	H	CH	F	H	H	H
Cl	I	CH	H	O-Ac	H	O-Ac
Cl	H	CH	H	OH	H	OH
NH_2	H	CH	H	OH	H	H

X^1	X^2	W^1	R^2	$R^{2'}$	R^3	$R^{3'}$
Cl	H	CH	H	OH	H	H

or its β-L-enantiomer or its pharmaceutically acceptable salt thereof.

4. The method of claim 1, wherein the β-D nucleoside of the formula (**II-a**) is selected from one of the following:

X^1	Y^1	R^1	$R^{1'}$	R^2	R^3
NH-Bz-(*m*-NO_2)	O	F	H	H	H
NH-Bz-(*o*-NO_2)	O	F	H	H	H
NH_2	O	F	H	F	H

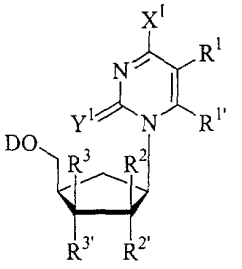
or its β-L-enantiomer or its pharmaceutically acceptable salt thereof.

5. The method of claim 1, wherein the β-D nucleoside of the formula (**II-b**) is selected from one of the following:

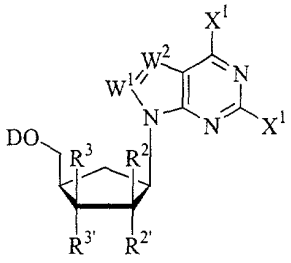
X^1	X^2	W^1	R^2	R^3
Cl	H	CH	F	H
OH	H	CH	H	H
NH_2	F	CH	H	H
NH_2	F	CH	F	H
NH_2	H	CH	H	H
OH	NH_2	CH	H	H
OH	H	CH	H	H

or its β-L-enantiomer or its pharmaceutically acceptable salt thereof.

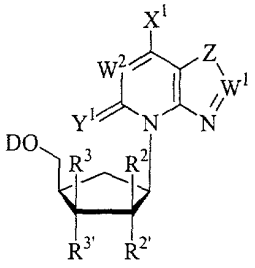
6. A method for the treatment or prophylaxis of host exhibiting a *Flaviviridae, Orthomyxoviridae* or *Paramyxoviridae* viral infection or abnormal cellular proliferation comprising administering an effective amount of a compound of the general formula (**V**) or (**VII**):



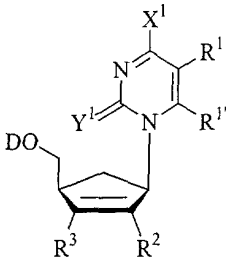
[V-a]



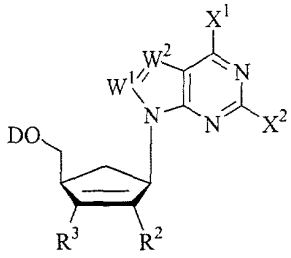
[V-b]



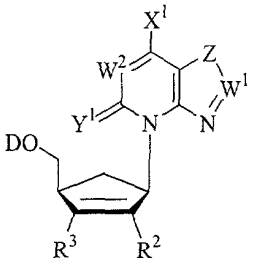
[V-c]



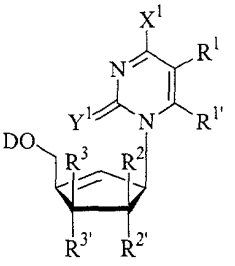
[VI-a]



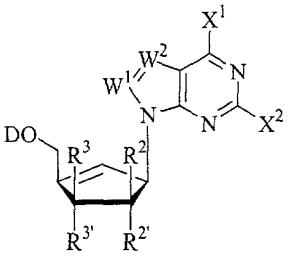
[VI-b]



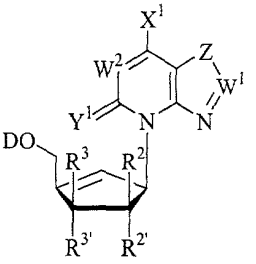
[VI-c]



[VI-a]



[VI-b]



[VI-c]

or its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:

each D, W^1, W^2, X^1, X^2, Y^1, Z, R^1, $R^{1'}$, R^2, $R^{2'}$, R^3 and $R^{3'}$ is the same as defined previously;

such that for the nucleoside of the general formula (**V**) or (**VI**), at least one of R^2 and $R^{2'}$ is hydrogen and at least one of R^3 and $R^{3'}$ is hydrogen.

7. The method of claim 6, wherein the β-D nucleoside of the formula (**V-a**) is selected from one of the following:

X^1	Y^1	R^1	$R^{1'}$	R^2	$R^{2'}$	R^3	$R^{3'}$
NH_2	O	F	H	H	OH	H	OH
OH	H	CH_3	H	H	H	H	H
OH	O	H	H	H	H	H	H
NH_2	O	H	H	H	OH	H	OH
NH_2	O	H	H	H	H	H	H
OH	O	F	H	H	OH	H	OH
NH_2	O	I	H	H	H	H	H
NH_2	O	I	H	H	OH	H	OH
NH_2	O	Cl	H	H	OH	H	OH

or its β-L-enantiomer or its pharmaceutically acceptable salt thereof.

8. The method of claim 6, wherein the β-D nucleoside of the formula (**VII-a**) is selected from one of the following:

X^1	Y^1	R^1	$R^{1'}$	R^2	$R^{2'}$	R^3	$R^{3'}$
NH_2	O	H	H	H	OH	H	OH
NH_2	O	F	H	H	OH	H	OH
NH-OH	O	H	H	H	OH	H	OH

or its β-L-enantiomer or its pharmaceutically acceptable salt thereof.

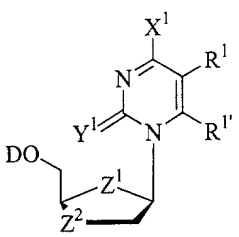
9. The method of claim 6, wherein the β-D nucleoside of the formula (**VII-b**) is selected from the following:

X^1	X^2	W^1	R^2	$R^{2'}$	R^3	$R^{3'}$
NH_2	H	CH	H	OH	H	OH

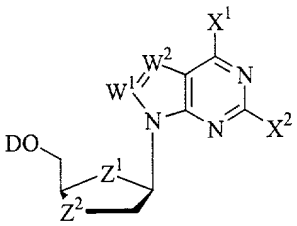
or its β-L-enantiomer or its pharmaceutically acceptable salt thereof.

10. A method for the treatment or prophylaxis of host exhibiting a *Flaviviridae, Orthomyxoviridae* or *Paramyxoviridae* viral infection or abnormal cellular

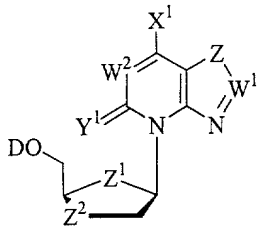
proliferation comprising administering an effective amount of a compound of the general formula (**XI**):



[**XI-a**]



[**XI-b**]



[**XI-c**]

or its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:

each D, W^1, W^2, X^1, X^2, Y^1, Z, R^1, $R^{1'}$, R^2, $R^{2'}$, R^3 and $R^{3'}$ is the same as defined previously;

each Z^1 and Z^2 independently is O, S, NR^6 or Se;

each R^6 is hydrogen, lower alkyl or lower acyl.

11. The method of claim 10, wherein the β-D nucleoside of the formula (**XI-a**) is selected from one of the following:

X^1	Y^1	Z^1	Z^2	R^1	$R^{1'}$
NH_2	O	O	O	H	H
NH_2	O	O	S	F	H
NH_2	O	O	O	F	H

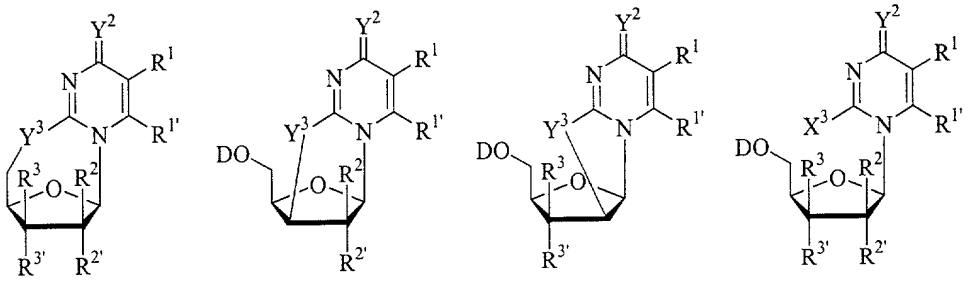
or its β-L-enantiomer or its pharmaceutically acceptable salt thereof.

12. The method of claim 10, wherein the β-D nucleoside of the formula (**XI-b**) is selected from one of the following:

X^1	X^2	W^1	Z^1	Z^2
Cl	H	CH	O	S
Cl	NH_2	CH	O	S
NH_2	F	CH	O	S
OH	H	CH	O	O

or its β-L-enantiomer or its pharmaceutically acceptable salt thereof.

13. A method for the treatment or prophylaxis of host exhibiting a *Flaviviridae, Orthomyxoviridae* or *Paramyxoviridae* viral infection or abnormal cellular proliferation comprising administering an effective amount of a compound of the general formula (**XIII**):



[XIII-a] **[XIII-b]** **[XIII-c]** **[XIII-d]**

or its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:

each D, R^1, $R^{1'}$, R^2, $R^{2'}$, R^3 and $R^{3'}$ is the same as defined previously;

each Y^2 is O, S, NH or NR^7;

each Y^3 is O, S, NH or NR^8;

each X^3 is OR^9 or SR^9; and

each R^7, R^8 and R^9 is hydrogen, lower alkyl of C_1-C_6, arylalkyl or aryl;

such that for the nucleoside of the general formula (**XIII-d**), at least one of R^2 and $R^{2'}$ is hydrogen and at least one of R^3 and $R^{3'}$ is hydrogen.

14. The method of claim 13, wherein the β-D nucleoside of the formula (**XIII-a**) is selected from one of the following:

Y^2	Y^3	R^1	$R^{1'}$	R^2	$R^{2'}$	R^3	$R^{3'}$
O	O	F	H	H	OH	H	OH

or its β-L-enantiomer or its pharmaceutically acceptable salt thereof.

15. The method of claim 13, wherein the β-D nucleoside of the formula (**XIII-c**) is selected from one of the following:

Y^2	Y^3	R^1	$R^{1'}$	R^3	$R^{3'}$
O	O	F	H	H	OH
O	O	F	H	H	O-Ms
NH	O	H	H	H	O-Ms

Y^2	Y^3	R^1	$R^{1'}$	R^3	$R^{3'}$
NH	O	H	H	H	O-Ac
NH	O	H	H	H	OH
NH	O	F	H	H	OH
NH	O	F	H	H	O-Ac

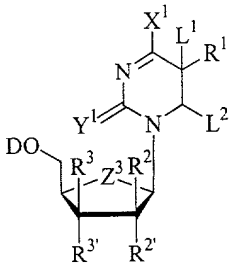
or its β-L-enantiomer or its pharmaceutically acceptable salt thereof.

16. The method of claim 13, wherein the β-D nucleoside of the formula (**XIII-d**) is selected from the following:

Y^2	X^3	R^1	$R^{1'}$	R^2	$R^{2'}$	R^3	$R^{3'}$
O	$O\text{-}CH_3$	H	H	H	O-Ac	H	O-Ac

or its β-L-enantiomer or its pharmaceutically acceptable salt thereof.

17. A method for the treatment or prophylaxis of host exhibiting a *Flaviviridae, Orthomyxoviridae* or *Paramyxoviridae* viral infection or abnormal cellular proliferation comprising administering an effective amount of a compound of the general formula (**XIV**):



[**XIV**]

or its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:

each D, X^1, Y^1, Z^1, R^1, R^2, $R^{2'}$, R^3 and $R^{3'}$ is the same as defined previously;

each L^1 is hydrogen, Cl or Br;

each L^2 is OH, OCH_3, OC_2H_5, OC_3H_7, OCF_3, OAc or OBz;

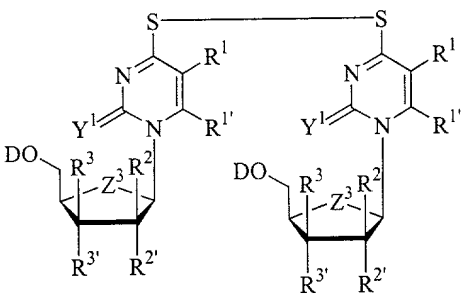
each Z^3 can be O or CH_2.

18. The method of claim 17, wherein the β-D nucleoside of the formula (**XIV**) is selected from one of the following:

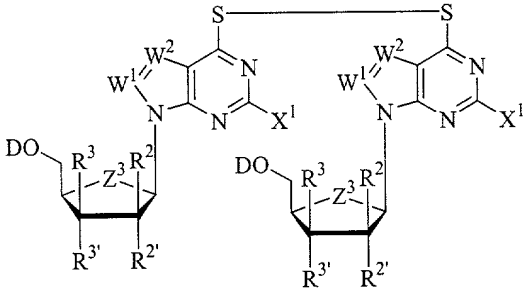
X^1	Y^1	R^1	$R^{1'}$	R^2	$R^{2'}$	R^3	$R^{3'}$	L^1	L^2
NH_2	O	NH-OH	OH	OH	H	H	OH	H	OH
OH	O	O	F	H	OH	H	OH	Cl	O-CH_3
OH	O	O	H	H	OH	H	OH	Br	O-CH_3
OH	O	O	F	H	OH	H	OH	Br	O-$COCH_3$
OH	O	O	F	H	OH	H	OH	Br	O-CH_3
OH	O	O	F	H	OH	H	OH	Br	O-Et
OH	O	O	Cl	H	OH	H	OH	Br	O-CH_3

or its β-L-enantiomer or its pharmaceutically acceptable salt thereof.

19. A method for the treatment or prophylaxis of host exhibiting a *Flaviviridae, Orthomyxoviridae* or *Paramyxoviridae* viral infection or abnormal cellular proliferation comprising administering an effective amount of a compound of the general formula (**XV**):



[**XV-a**]



[**XV-b**]

or its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:

each D, W^1, W^2, X^1, Y^1, Z^3, R^1, $R^{1'}$, R^2, $R^{2'}$, R^3 and $R^{3'}$ is the same as defined previously.

20. The method of claim 19, wherein the β-D nucleoside of the formula (**XV-a**) is defined as the following:

Y^1	Z^3	R^1	$R^{1'}$	R^2	$R^{2'}$	R^3	$R^{3'}$
O	O	H	H	H	OH	H	OH

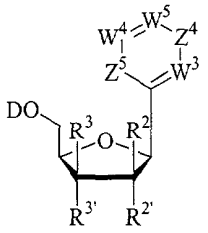
its β-L-enantiomer or its pharmaceutically acceptable salt thereof.

21. The method of claim 19, wherein the β-D nucleoside of the formula (**XV-b**) is defined as the following:

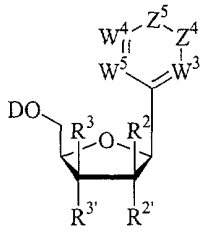
X^1	W^1	Z^3	R^2	$R^{2'}$	R^3	$R^{3'}$
NH_2	CH	O	H	OH	H	OH

its β-L-enantiomer or its pharmaceutically acceptable salt thereof.

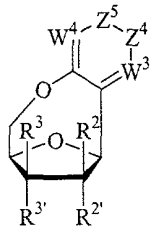
22. A method for the treatment or prophylaxis of host exhibiting a *Flaviviridae, Orthomyxoviridae* or *Paramyxoviridae* viral infection or abnormal cellular proliferation comprising administering an effective amount of a compound of the general formula (**XVI**):



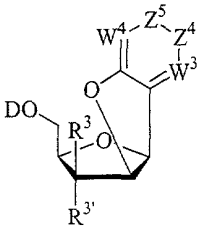
[XVI-a]



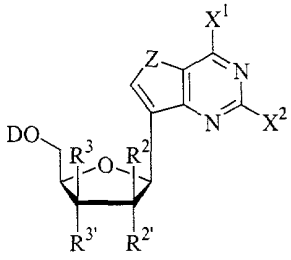
[XVI-b]



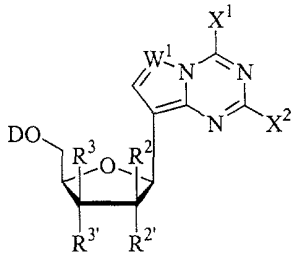
[XVI-c]



[XVI-d]



[XVI-e]



[XVI-f]

or its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:

each D, W^1, X^1, X^2, Y^1, Z, R^1, R^2, $R^{2'}$, R^3 and $R^{3'}$ is the same as defined previously;

each W^3 is independently N, CH or CR^1;

each W^4 and W^5 is independently N, CH, CX^1 or $CR^{1'}$; and

each Z^4 and Z^5 is independently NH or $C(=Y^1)$;

such that if Z^4 and Z^5 are covalently bound, then Z^4 is not $C(=Y^1)$ when Z^5 is $C(=Y^1)$; and

there are no more than three ring-nitrogens.

23. The method of claim 22, wherein the β-D nucleoside of the formula **(XVI-a)** is selected as one of the following:

W^3	Z^4	W^5	W^4	Z^5	R^2	$R^{2'}$	R^3	$R^{3'}$
CH	NCH_3	C-OH	N	C=O	H	OH	H	O-Ts
CH	NH	$C-NH_2$	N	C=O	H	OH	H	OH
CH	NH	C-NHAc	N	C=O	H	OH	H	OH
CH	NH	C-OH	N	C=O	H	OH	H	OH
CH	NCH_3	$C-NH_2$	N	C=O	H	OH	H	OH
CH	NH	C-NHBz	N	C=O	H	OH	H	OH
CH	C=O	$C-NH_2$	C-SH	NH	H	OH	H	OH
CH	NH	C-OH	N	C=O	H	Cl	H	OH
CH	NH	$C-NH_2$	N	C=O	H	Br	H	OH

its β-L-enantiomer or its pharmaceutically acceptable salt thereof.

24. The method of claim 22, wherein the β-D nucleoside of the formula **(XVI-c)** is defined as the following:

W^3	Z^4	Z^5	W^4	R^2	$R^{2'}$	R^3	$R^{3'}$
CH	$N-CH_3$	C=O	N	H	OH	H	O-Ac

its β-L-enantiomer or its pharmaceutically acceptable salt thereof.

25. The method of claim 22, wherein the β-D nucleoside of the formula **(XVI-d)** is defined as the following:

W^3	Z^4	Z^5	W^4	R^3	$R^{3'}$

W^3	Z^4	Z^5	W^4	R^3	$R^{3'}$
CH	N	C=NH	N	H	OH

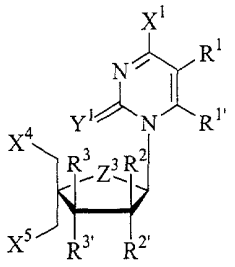
its β-L-enantiomer or its pharmaceutically acceptable salt thereof.

26. The method of claim 22, wherein the β-D nucleoside of the formula (**XVI-f**) is defined as the following:

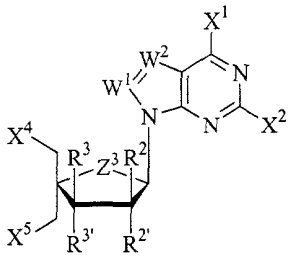
X^1	X^2	W^1	R^2	$R^{2'}$	R^3	$R^{3'}$
NH_2	H	N	H	OH	H	OH

its β-L-enantiomer or its pharmaceutically acceptable salt thereof.

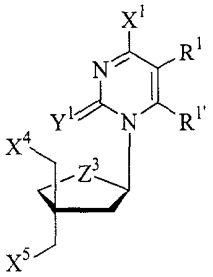
27. A method for the treatment or prophylaxis of host exhibiting a *Flaviviridae, Orthomyxoviridae* or *Paramyxoviridae* viral infection or abnormal cellular proliferation comprising administering an effective amount of a compound of the general formula (**XVII**):



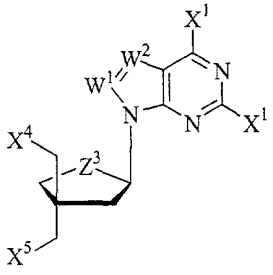
[XVII-a]



[XVII-b]



[XVII-c]



[XVII-d]

or its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:

each D, W^1, W^2, X^1, X^2, Y^1, Z^3, R^1, $R^{1'}$, R^2, $R^{2'}$, R^3 and $R^{3'}$ is the same as defined previously;

each X^4 and X^5 is independently hydrogen, halogen (F, Cl, Br or I), N_3, NH_2, NHR^8, $NR^8R^{8'}$, OH, OR^8, SH or SR^8; and

each R^8 and $R^{8'}$ is independently hydrogen, lower alkyl, lower alkenyl, aryl or arylalkyl, such as an unsubstituted or substituted phenyl or benzyl;

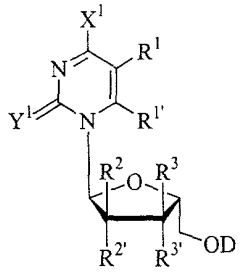
such that for the nucleoside of the general formula (**XVII-a**) or (**XVII-b**), X^4 is not OH or OR^8.

28. The method of claim 27, wherein the β-D nucleoside of the formula (**XVII-d**) is defined as the following:

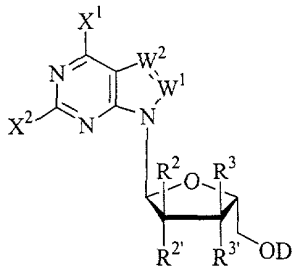
X^1	X^2	W^1	X^3	X^4
NH_2	F	CH	H	OH

its β-L-enantiomer or its pharmaceutically acceptable salt thereof.

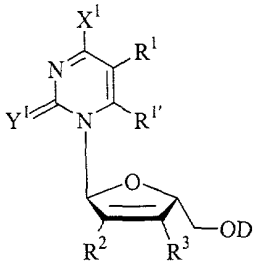
29. A method for the treatment or prophylaxis of host exhibiting a *Flaviviridae, Orthomyxoviridae* or *Paramyxoviridae* viral infection or abnormal cellular proliferation comprising administering an effective amount of a compound of the general formula (**XVIII**):



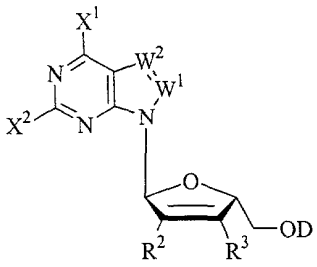
[XVIII-a]



[XVIII-b]



[XVIII-c]

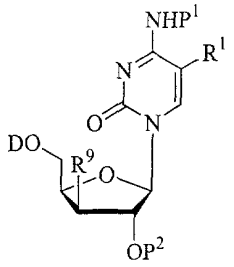


[XVIII-d]

or its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:

each D, W^1, W^2, X^1, X^2, Y^1, R^1, $R^{1'}$, R^2, $R^{2'}$, R^3 and $R^{3'}$ is the same as defined previously;

30. A method for the treatment or prophylaxis of host exhibiting a *Flaviviridae, Orthomyxoviridae* or *Paramyxoviridae* viral infection or abnormal cellular proliferation comprising administering an effective amount of a compound of the general formula (**XIX**):



[**XIX**]

or its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:

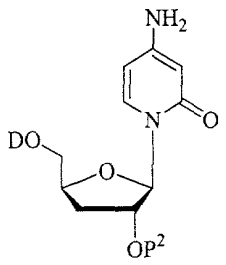
each D, R^1, R^4 and $R^{4'}$ is the same as defined previously;

each R^9 is hydrogen, halogen (F, Cl, Br or I) or OP^3;

each P^1 is hydrogen, lower alkyl, lower alkenyl, aryl, arylalkyl (such as an unsubstituted or substituted phenyl or benzyl), OH, OR^4, NH_2, NHR^4 or $NR^4R^{4'}$; and

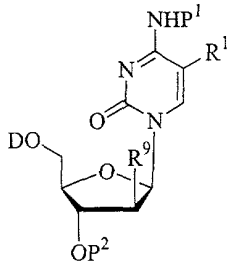
each P^2 and P^3 is independently hydrogen, alkyl, acyl, -Ms, -Ts, monophosphate, diphosphate, triphosphate, mono-phosphate ester, diphosphate ester, triphosphate ester, phospholipid or amino acid.

31. A method for the treatment or prophylaxis of host exhibiting a *Flaviviridae, Orthomyxoviridae* or *Paramyxoviridae* viral infection or abnormal cellular proliferation comprising administering an effective amount of a compound of the general formula:



or its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:
each D and P^2 is the same as defined previously.

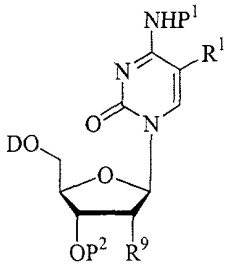
32. A method for the treatment or prophylaxis of host exhibiting a *Flaviviridae, Orthomyxoviridae* or *Paramyxoviridae* viral infection or abnormal cellular proliferation comprising administering an effective amount of a compound of the general formula (**XX**):



[XX]

its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:
each D, P^1, P^2, P^3, R^1, R^4, $R^{4'}$ and R^9 is the same as defined previously.

33. A method for the treatment or prophylaxis of host exhibiting a *Flaviviridae, Orthomyxoviridae* or *Paramyxoviridae* viral infection or abnormal cellular proliferation comprising administering an effective amount of a compound of the general formula (**XXI**):

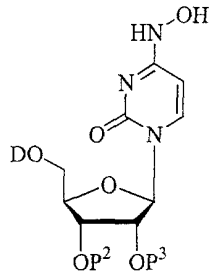


[**XXI**]

its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:

each D, P^1, P^2, P^3, R^1, R^4 and $R^{4'}$ is the same as defined previously.

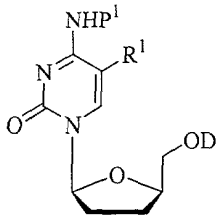
34. A method for the treatment or prophylaxis of host exhibiting a *Flaviviridae, Orthomyxoviridae* or *Paramyxoviridae* viral infection or abnormal cellular proliferation comprising administering an effective amount of a compound of the general formula:



its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:

each D, P^2 and P^3 is the same as defined previously.

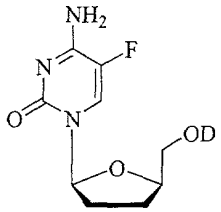
35. A method for the treatment or prophylaxis of host exhibiting a *Flaviviridae, Orthomyxoviridae* or *Paramyxoviridae* viral infection or abnormal cellular proliferation comprising administering an effective amount of a compound of the general formula (**XXII**):



[XXII]

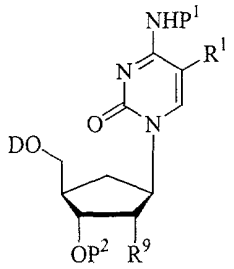
its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:
each D, P^1 and R^1 is the same as defined previously.

36. A method for the treatment or prophylaxis of host exhibiting a *Flaviviridae, Orthomyxoviridae* or *Paramyxoviridae* viral infection or abnormal cellular proliferation comprising administering an effective amount of a compound of the general formula:



its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:
D is the same as defined previously.

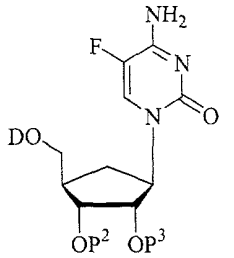
37. A method for the treatment or prophylaxis of host exhibiting a *Flaviviridae, Orthomyxoviridae* or *Paramyxoviridae* viral infection or abnormal cellular proliferation comprising administering an effective amount of a compound of the general formula (**XXIII**):



[XXIII]

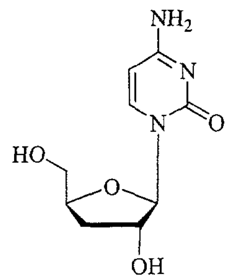
its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:
each D, P^1, P^2, P^3, R^1, R^4 and $R^{4'}$ is the same as defined previously.

38. A method for the treatment or prophylaxis of host exhibiting a *Flaviviridae, Orthomyxoviridae* or *Paramyxoviridae* viral infection or abnormal cellular proliferation comprising administering an effective amount of a compound of the general formula:



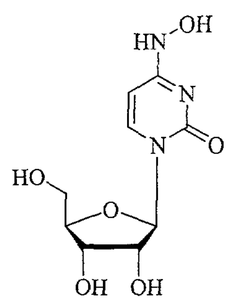
its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:
each D, P^2 and P^3 is the same as defined previously.

39. A method for the treatment or prophylaxis of host exhibiting a *Flaviviridae, Orthomyxoviridae* or *Paramyxoviridae* viral infection or abnormal cellular proliferation comprising administering an effective amount of a compound of the general formula:



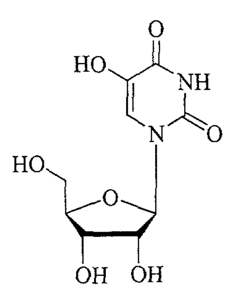
or its pharmaceutically acceptable salt thereof.

40. A method for the treatment or prophylaxis of host exhibiting a *Flaviviridae, Orthomyxoviridae* or *Paramyxoviridae* viral infection or abnormal cellular proliferation comprising administering an effective amount of a compound of the general formula:



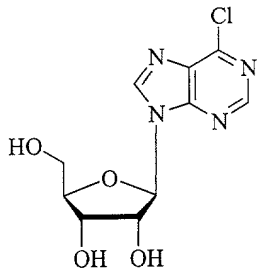
or its pharmaceutically acceptable salt thereof.

41. A method for the treatment or prophylaxis of host exhibiting a *Flaviviridae, Orthomyxoviridae* or *Paramyxoviridae* viral infection or abnormal cellular proliferation comprising administering an effective amount of a compound of the general formula:



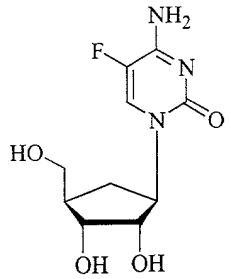
or its pharmaceutically acceptable salt thereof.

42. A method for the treatment or prophylaxis of host exhibiting a *Flaviviridae, Orthomyxoviridae* or *Paramyxoviridae* viral infection or abnormal cellular proliferation comprising administering an effective amount of a compound of the general formula (**I**) or (**II**):



or its pharmaceutically acceptable salt thereof.

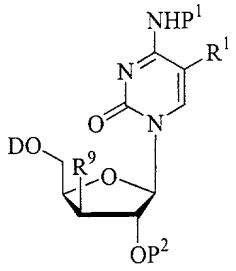
43. A method for the treatment or prophylaxis of host exhibiting a *Flaviviridae, Orthomyxoviridae* or *Paramyxoviridae* viral infection or abnormal cellular proliferation comprising administering an effective amount of a compound of the general formula:



or its pharmaceutically acceptable salt thereof.

44. A method for the treatment or prophylaxis of a hepatitis C virus infection in a host comprising administering an effective treatment amount of a compound according to any one of claims 1-29.

45. A method for the treatment or prophylaxis of a hepatitis C virus infection in a host comprising administering an effective treatment amount of a β-D nucleoside of the formula (**XIX**):



[**XIX**]

its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:

each D, R^1, R^4 and $R^{4'}$ is the same as defined previously;

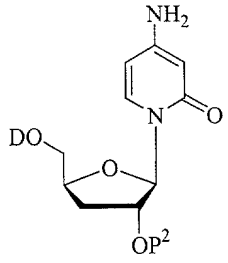
each R^9 is hydrogen, halogen (F, Cl, Br or I) or OP^3;

each P^1 is hydrogen, lower alkyl, lower alkenyl, aryl, arylalkyl (such as an unsubstituted or substituted phenyl or benzyl), OH, OR^4, NH_2, NHR^4 or $NR^4R^{4'}$; and

each P^2 and P^3 is independently hydrogen, alkyl, acyl, -Ms, -Ts, monophosphate, diphosphate, triphosphate, mono-phosphate ester, diphosphate ester, triphosphate ester, phospholipid or amino acid;

optionally in a pharmaceutically acceptable carrier.

46. A method for the treatment or prophylaxis of a hepatitis C virus infection in a host comprising administering an effective treatment amount of a β-D nucleoside of the formula:

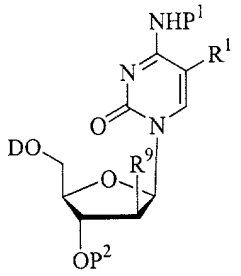


its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:

each D and P^2 is the same as defined previously;

optionally in a pharmaceutically acceptable carrier.

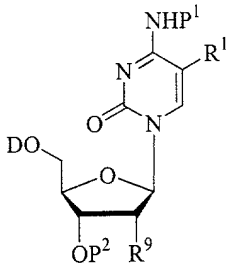
47. A method for the treatment or prophylaxis of a hepatitis C virus infection in a host comprising administering an effective treatment amount of a β-D nucleoside of the formula (**XX**):



[**XX**]

its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:
each D, P^1, P^2, P^3, R^1, R^4, $R^{4'}$ and R^9 is the same as defined previously;
optionally in a pharmaceutically acceptable carrier.

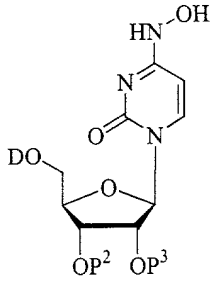
48. A method for the treatment or prophylaxis of a hepatitis C virus infection in a host comprising administering an effective treatment amount of a β-D nucleoside of the formula (**XXI**):



[**XXI**]

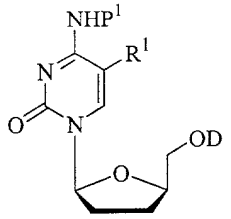
its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:
each D, P^1, P^2, P^3, R^1, R^4 and $R^{4'}$ is the same as defined previously;
optionally in a pharmaceutically acceptable carrier.

49. A method for the treatment or prophylaxis of a hepatitis C virus infection in a host comprising administering an effective treatment amount of a β-D nucleoside of the formula:



its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:
each D, P^2 and P^3 is the same as defined previously;
optionally in a pharmaceutically acceptable carrier.

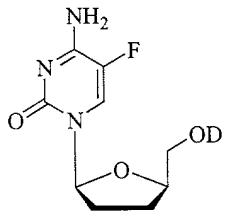
50. A method for the treatment or prophylaxis of a hepatitis C virus infection in a host comprising administering an effective treatment amount of a β-D nucleoside of the formula (**XXII**):



[XXII]

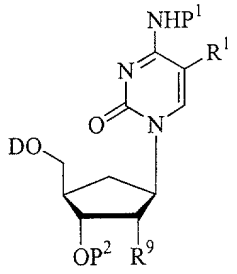
its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:
each D, P^1 and R^1 is the same as defined previously;
optionally in a pharmaceutically acceptable carrier.

51. A method for the treatment or prophylaxis of a hepatitis C virus infection in a host comprising administering an effective treatment amount of a β-D nucleoside of the formula:



its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:
D is the same as defined previously;
optionally in a pharmaceutically acceptable carrier.

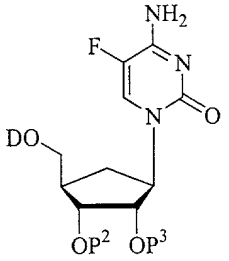
52. A method for the treatment or prophylaxis of a hepatitis C virus infection in a host comprising administering an effective treatment amount of a β-D nucleoside of the formula (**XXIII**):



[XXIII]

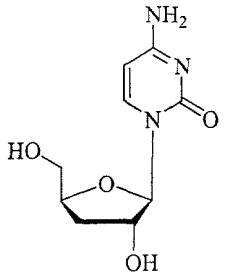
its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:
each D, P^1, P^2, P^3, R^1, R^4 and $R^{4'}$ is the same as defined previously;
optionally in a pharmaceutically acceptable carrier.

53. A method for the treatment or prophylaxis of a hepatitis C virus infection in a host comprising administering an effective treatment amount of a β-D nucleoside of the formula (**XXIII**) is the following:



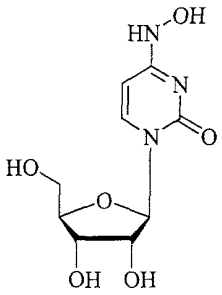
its β-L enantiomer or its pharmaceutically acceptable salt thereof, wherein:
each D, P^2 and P^3 is the same as defined previously;
optionally in a pharmaceutically acceptable carrier.

54. A method for the treatment or prophylaxis of a hepatitis C virus infection in a host comprising administering an effective treatment amount of a nucleoside of the formula:



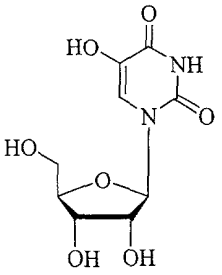
or its pharmaceutically acceptable salt thereof; optionally in a pharmaceutically acceptable carrier.

55. A method for the treatment or prophylaxis of a hepatitis C virus infection in a host comprising administering an effective treatment amount of a nucleoside of the formula:



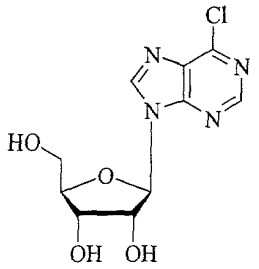
or its pharmaceutically acceptable salt thereof; optionally in a pharmaceutically acceptable carrier.

56. A method for the treatment or prophylaxis of a hepatitis C virus infection in a host comprising administering an effective treatment amount of a nucleoside of the formula:



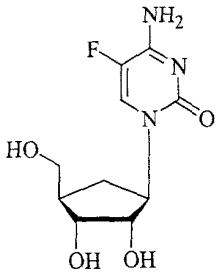
or its pharmaceutically acceptable salt thereof; optionally in a pharmaceutically acceptable carrier.

57. A method for the treatment or prophylaxis of a hepatitis C virus infection in a host comprising administering an effective treatment amount of a nucleoside of the formula:



or its pharmaceutically acceptable salt thereof; optionally in a pharmaceutically acceptable carrier.

58. A method for the treatment or prophylaxis of a hepatitis C virus infection in a host comprising administering an effective treatment amount of a nucleoside of the formula:



or its pharmaceutically acceptable salt thereof; optionally in a pharmaceutically acceptable carrier.